WHAT IS CLAIMED IS:

1. A method of treating a neoplasia in a mammal, said method comprising administering to said mammal a serum-stable nucleic acid-lipid particle comprising a nucleic acid portion that is fully encapsulated within the lipid portion, wherein said administration is by injection at an injection site that is distal to said neoplasia in said mammal.

2. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid comprises an expressible gene.

3. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein said expressible gene encodes a member selected from the group consisting of therapeutic polypeptides and therapeutic polynucleotides.

4. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein said gene is exogenous.

5. A method of treating a neoplasia in a mammal in accordance with claim 3, wherein said gene is a member selected from the group consisting of genes encoding suicide enzymes, toxins and ribozymes.

6. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein said gene encodes a member selected from the group consisting of herpes simplex virus thymidine kinase (HSV-TK), cytosine deaminase, xanthine-guaninephosphoribosyl transferase, purine nucleoside phosphorylase, cytochrome P450 2B1 and analogs thereof.

7. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein said gene is homologous.

8. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein said gene encodes a member selected from the group consisting of proto-oncogenes, cytokines, immune stimulatory proteins and anti-angiogenic proteins.

9. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein said gene is a member selected from the group consisting of IL-2, IL-12, IL-15 and GM-CSF.

10. A method of treating a neoplasia in a mammal in accordance with claim 2, wherein a therapeutically effective amount of said gene is generated at said neoplasia.

11. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid-lipid particle comprises a protonatable lipid having a pKa in the range of about 4 to about 11.

12. A method of treating a neoplasia in a mammal in accordance with claim 11, wherein said protonatable lipid is a member selected from the group consisting of DODAC, DODAP, DODMA, DOTAP, DOTMA, DC-Chol, DMRIE, DSDAC and mixtures thereof.

13. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid-lipid particle comprises a lipid conjugate that prevents aggregation during formulation.

14. A method of treating a neoplasia in a mammal in accordance with claim 13, wherein said lipid conjugate is a member selected from the group consisting of PEG-lipids and PAO-lipids.

15. A method of treating a neoplasia in a mammal in accordance with claim 13, wherein said lipid conjugate is reversibly associated with an outer lipid monolayer, and wherein said lipid conjugate exchanges out of said outer lipid monolayer at a rate faster than PEG-CerC20.

16. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid-lipid particle is substantially devoid of detergents and organic solvents.

17. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein a therapeutically effective amount of said nucleic acid-lipid particle accumulates at said neoplasia.

18. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein a therapeutic effect is detected at the site of said neoplasia.

19. A method of treating a neoplasia in a mammal in accordance with claim 17, wherein said therapeutically effective amount comprises greater than about 0.5% of an administered dose.

20. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid-lipid particle has a diameter of about 50 nm to about 200 nm.

21. A method of treating a neoplasia in a mammal in accordance with claim 20, wherein said nucleic acid-lipid particle has a diameter of about 60 nm to about 130 nm.

22. A method of treating a neoplasia in a mammal in accordance with claim 20, wherein said nucleic acid-lipid particles are of a uniform size.

23. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid-lipid particle has a nucleic acid to lipid ratio of greater than about 3 mg nucleic acid to mmole of lipid.

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24. A method of treating a neoplasia in a mammal in accordance with claim 23, wherein said particle has a nucleic acid to lipid ratio of greater than about 14 mg nucleic acid to mmole of lipid.

25. A method of treating a neoplasia in a mammal in accordance with claim 23, wherein said particle has a nucleic acid to lipid ratio of greater than about 25 mg nucleic acid to mmole of lipid.

26. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said nucleic acid remains at least 90% intact when said particle

containing about 1 μg DNA is treated with about 100 U DNAse 1 in digestion buffer at 37°C for 30 min.

27. A method of treating a neoplasia in a mammal in accordance with claim 1, further comprising administering a chemotherapeutic agent.

28. A method of treating a neoplasia in a mammal in accordance with claim 1, wherein said administering is performed at least once per eight weeks.

29. A method of sensitizing a neoplastic cell to a compound, said method comprising:

a) transfecting said neoplastic cell with a serum-stable nucleic acid-lipid particle encoding a gene-product comprising a nucleic acid that is fully encapsulated within a lipid, wherein administration of said nucleic acid-lipid particle is by injection at an injection site that is distal to said neoplastic cell; and

b) delivering to said cell a first compound which is processed by said gene-product into a second compound, wherein said cell is more sensitive to said second compound than said first compound.

30. A method of sensitizing a neoplastic cell in accordance with claim 29 wherein said first compound is formulated in a lipid.

31. A method of sensitizing a neoplastic cell in accordance with claim 29 wherein said gene product is a member selected from the group consisting of therapeutic polypeptides and therapeutic polynucleotides.

32. A method of sensitizing a neoplastic cell in accordance with claim 29 wherein said gene product is a member selected from the group consisting of suicide enzymes, toxins and ribozymes.

33. A method of sensitizing a neoplastic cell in accordance with claim 29 wherein said gene product is a member selected from the group consisting of herpes simplex virus thymidine kinase (HSV-TK), cytosine deaminase, xanthine-guaninephosphoribosyl transferase, purine nucleoside phosphorylase, cytochrome P450 2B1 and analogs thereof.

34. A method of sensitizing a neoplastic cell in accordance with claim 29 wherein a therapeutic effect is detected at the site of said neoplasia cell.

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